

## Antimicrobial gel for strongly infected root channels

This is a unique combination of 3 active ingredients solved (in the most active state) in inert biopolymer matrix. At the temperature of a human body fluidity of the gel sharply increases, allowing active ingredients to get even into the most remote sites of root canals.

### •• Structure

100 grams of the gel contain: Chlorhexidine Diacetate – 2 gr; Metronidazole Benzoate – 10 gr; Hydrocortisone Acetate – 0.1 gr; bioinert Solvent and biopolymer Matrix, surfactant, modifiers of rheology and fragrances – up to 100 gr.

### •• Method of application and doses

#### First visit:

- Remove carious dentine and remains of the pulp from the pulp camera; wash out.
- Isolate tooth from the saliva.
- Carry out the primary tool processing of the root canal. It is desirable to use endolubricant on the basis of EDTA (for example Chela-Jen Gel). In case of using sodium hypochlorite during the tool processing it is necessary to finish the processing by washing the canal with a large amount of distilled water or physical solution. Dry up the canal with the help of paper pins. Do not use air!
- Fill the canal (processed in the described way) with the help of the cannula (goes complete with the material) or the canal-filler until it doesn't start going beyond the pulp camera.
- Place a rolled ball of sterile cotton wool into the tooth cavity and make a temporary cement filling.

#### Second visit:

It takes place 2 – 3 days later after the first visit (as always, the tooth should be isolated from saliva).

- Wash thoroughly with warm water to remove the gel remains from the canal.
- Carry out the final processing of the canal: full mechanical and antiseptic processing, drying and sealing of the canals should be carried out.

In some cases there is need to reuse the gel in the root canals under a tight hermetic bandage (duration of the treatment can be 1 – 3 days).

### •• Indications to application

- All types of «infected teeth»: the complicated pulpitis, different types of sharp and chronic periapical pathology.

### •• Active components of the gel and their pharmacological action

#### Metronidazole Benzoate:

Metronidazole – is derivation from nitroimidazole, has an antiprotozoal and antibacterial effect. The mechanism of effect of metronidazole is in biochemical interaction with DNA of a cell of microorganisms. It inhibits the synthesis of their nucleic acids that leads to the death of bacteria.

Metronidazol suppresses anaerobic microflora of root canals very effectively, stops catabolic destruction of tissues blocking the inflammatory phenomena at the biochemical level. Along with it no allergic reactions or cases of accustoming to this preparation have been observed until today.

#### Chlorhexidine Diacetate:

Chlorhexidine is antiseptic. It has an antibacterial effect. The mechanism of action is the following: at high concentration of.

Chlorhexidine cytoplasmatic contents of the bacterial cell precipitate and lead to death of bacteria. It is active to gram-negative and gram-positive microorganisms, yeast, dermatophytes and lipophilic viruses is active concerning a wide range of vegetative forms.

It is especially effective to aerobic microflora of root canals.

#### Hydrocortisone acetate:

Hydrocortisone acetate belongs to the group of glucocorticosteroids of a natural origin. It has antishock, anti-toxic, immunosuppressive, antiexudative, anti-itch, anti-inflammatory, desensitizing, antiallergetic actions. It slows down reactions of hypersensitiveness, proliferative and exudative processes in the inflammation center.

### •• Side effect

At local use of the gel allergic reactions (skin rash, itch, nettle rash) and a headache can be observed.

### •• Overdose

Casual or deliberate swallowing of a large amount of the gel can become the reason for strengthening of side effects caused mainly by metronidazole (chlorhexidine is practically not soaked up from a gastrointestinal tract). Nausea, vomiting, dizziness, in more complicated cases – paresthesia and spasms can be observed. Treatment: washing out of the stomach, symptomatic therapy – if necessary.

### •• Interaction with other medicines

Casual or deliberate swallowing of a large amount of the gel can become the reason for strengthening of side effects caused mainly by metronidazole (chlorhexidine is practically not soaked up from a gastrointestinal tract). Nausea, vomiting, dizziness, in more complicated cases – paresthesia and spasms can be observed. Treatment: washing out of the stomach, symptomatic therapy – if necessary.

### •• Interaction with other medicines

At local application in recommended doses the system interaction of the gel with other medicines was not revealed.

### •• Collateral reactions

The product can cause irritation of eyes, skin and mucous membranes.

### •• Warranty

The manufacturer warrants the quality of manufactured products. The adverse events inflicted by violation of user manual, storage conditions and other events inflicted by non-stipulated usage of the material are not the subjects of warranty. The customer is responsible for determination of suitability of this product for user's application. Warranty conditions: the product does not comply with requirements declared by manufacturer. In this case the manufacturer replaces the defective material within warranty period.

### •• Limitation of liability

The manufacturer's liability is limited by only cases stipulated by direct legislation of the country.

### •• Storage

- Inappropriate storage conditions will reduce terms of use and can lead to deterioration of properties of the material. Keep away from direct sunlight. Store the material in a dry place.
- Store the product in a dark place at temperature of 4 – 25 °C (39.2 – 77 °F). DO NOT FREEZE!
- A warranty period of storage of the material – 18 months.

### •• Recycling

Dispose of the medical device in accordance with local / regional / national / international legal requirements.

### •• Packing:

- Jen-MetroHeCor in a syringe – 2 ml.
- Endodontic plastic cannulas (5 pieces).